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10/069,001	02/20/2002	Yuji Sawada	0992-0127P	4536
2292	7590 06/05/2006		EXAM	INER
· · · · · · · · · · · · · · · · · · ·	EWART KOLASCH &	ALEJANDRO,	RAYMOND	
PO BOX 747 FALLS CHURCH, VA 22040-0747			ART UNIT	PAPER NUMBER
			1745	

DATE MAILED: 06/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

		Application No.	Applicant(s)
		10/069,001	SAWADA ET AL.
	Office Action Summary	Examiner	Art Unit
		Raymond Alejandro	1745
Period fo	The MAILING DATE of this communication app or Reply	ears on the cover sheet with the c	orrespondence address
WHIC - Exter after - If NO - Failu Any r	CHEVER IS LONGER, FROM THE MAILING DATES IN LONGER, FROM THE MAILING DATES IN THE MAILING DAT	ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be time will apply and will expire SIX (6) MONTHS from the cause the application to become ABANDONE	N. nely filed the mailing date of this communication. D (35 U.S.C. § 133).
Status			
2a)⊠	Responsive to communication(s) filed on <u>05/17</u> This action is <b>FINAL</b> . 2b) This Since this application is in condition for allowar closed in accordance with the practice under E	action is non-final.  nce except for formal matters, pro	
Dispositi	on of Claims	-	
4)⊠ 5)□ 6)⊠ 7)□ 8)□ Applicati 9)□ 10)□	Claim(s) 1,5,8,9,14,16 and 25-27 is/are pending  4a) Of the above claim(s) is/are withdraw  Claim(s) is/are allowed.  Claim(s) 1,5,8,9,14,16 and 25-27 is/are rejected  Claim(s) is/are objected to.  Claim(s) are subject to restriction and/or  on Papers  The specification is objected to by the Examined  The drawing(s) filed on is/are: a) access  Applicant may not request that any objection to the of  Replacement drawing sheet(s) including the correction  The oath or declaration is objected to by the Examined	vn from consideration.  d.  r election requirement.  r.  epted or b) □ objected to by the Edrawing(s) be held in abeyance. See ion is required if the drawing(s) is obj	e 37 CFR 1.85(a). jected to. See 37 CFR 1.121(d).
Priority u	nder 35 U.S.C. § 119		
12)⊠ <i>i</i> a)[	Acknowledgment is made of a claim for foreign All b) Some * c) None of:  1. Certified copies of the priority documents 2. Certified copies of the priority documents 3. Copies of the certified copies of the prior application from the International Bureau see the attached detailed Office action for a list of	s have been received. s have been received in Application ity documents have been received (PCT Rule 17.2(a)).	on No ed in this National Stage
2)  Notice 3)  Inform	e of References Cited (PTO-892) e of Draftsperson's Patent Drawing Review (PTO-948) nation Disclosure Statement(s) (PTO-1449 or PTO/SB/08) 'No(s)/Mail Date	4) Interview Summary Paper No(s)/Mail Da 5) Notice of Informal Pa	•

#### **DETAILED ACTION**

#### Response to Amendment

This office communication is being provided responsive to the amendment dated 05/17/06. The applicant has overcome the objection and the 35 USC 112 rejection. With respect to the art rejections, applicant has only overcome the 35 USC 102/103 rejection over the JP'972. Refer to the foregoing amendment for additional information regarding applicant's rebuttal arguments and remarks. Therefore, the present claims are still rejected over two previously cited references as set forth infra.

#### Claim Rejections - 35 USC § 103

- 1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

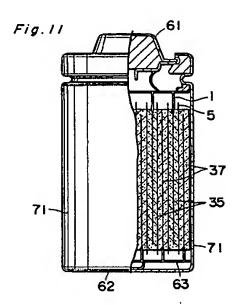
3. Claims 1 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nonaka et al 2002/0138958.

The present application is directed to a laminate for sealing a battery electrolyte or electrode wherein the disclosed inventive concept comprises the specific laminate structure.

Nonoka et al disclose a lithium ion secondary battery as shown in Figure 11 comprising a positive electrode 35, a negative electrode 37 and a film separator 5 for separating both electrodes 35 and 37 (SECTION 0015). It is further disclosed that a porous polypropylene film is used as the separator (SECTION 0035); and in conventional lithium secondary batteries, aluminum foil is formed with natural oxide films on its surface so that thin isolating film have often been formed in the interface therebetween (the inert protective or passive film formed by oxidative of said metal) (SECTION 0015).

Figure 11 below illustrates the battery comprising at least a negative electrode 37 and a film separator 5 and forming a laminate structure (—emphasis added). Thus, Nonoka et al directly embodies a laminate layered-structure including a polyolefin film (the separator film) in contact with an aluminum foil which has thereon a natural oxide film. Accordingly, Nonoka et al also provide the necessary structural interrelationship to meet the claimed requirement of a metal layer having a surface-treated layer formed thereon which is an inert protective layer or passive film; and a layer of a polyolefin formed over the surface treated layer.

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1<sup>st</sup> Examiner's note: as to the specific preamble reciting "a laminate for sealing an electrolyte or protecting an electrode of a battery", it is pointed out that the preamble still refers to intended use. That is, the claim is directed to a laminate structure per se and the foregoing preamble phrase is only a statement of ultimate intended utility.

<u>metal layer</u>" and b) "thermally bonded" are being construed as <u>product-by-process limitation</u> and therefore, it is contended that the product itself does not depend on the process of making it. Accordingly, in a product-by-process claim, the patentability of a product does not depend on its method of production. (emphasis added  $\rightarrow$ ) Having shown that the prior art of record comprises the same laminate structure (i.e. the metal layer, the surface treated layer, and the polyolefin layer in the same structural arrangement), it is further noted that the product in the instant claims is the same as or obvious over the product of the prior art.

Nonoka et al disclose a battery laminate structure as seen and described. However, the preceding prior art does not expressly disclose the specific order of layers.

To that end, it has been held that re-arrangement, reversal or duplication of parts is obvious. Succinctly stated, fact that a layer of the claimed laminate is <u>structurally re-arranged</u>,

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reversed or duplicated is not sufficient by itself to patentably distinguish over an otherwise old feature unless there are new or unexpected results as it is a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration of the claimed order of layering (specific laminate structure) was significant. In re Japikse 86 USPQ 70. In re Kuhle 188 USPQ 7. In re Gazda 104 USPQ 400. In re Harza 124 USPQ 378. (Refer to MPEP 2144.04 [R-1] Legal Precedent as Source of Supporting Rationale: VI. Reversal, Duplication, OR Rearrangement of Parts).

4. Claims 1, 5, 8-9, 14, 16 and 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Japanese document JP 11-086808 (herein called "the JP'808 document") in view Nonaka et al 2002/0138958.

The present application is directed to a laminate for sealing a battery electrolyte or electrode wherein the disclosed inventive concept comprises the specific laminate structure.

With reference to claims 1, 14 and 16:

The JP'808 document discloses a sealing bag for nonaqueous electrolyte battery, the sealing bag seals the positive and negative electrodes and the electrolyte (Title/Abstract). Thus, the layered sealing bag meets the requirement of being a seal film for sealing a battery component such as an electrolyte or an electrode.

1<sup>st</sup> Examiner's note: as to the specific preamble reciting "for use as a seal film for sealing an electrolyte of a battery or as a protective film for protecting an electrode of a battery", it is pointed out that the preamble refers to intended use. That is, the claim is directed

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to a laminate <u>per se</u> and the foregoing preamble phrase is only a statement of ultimate intended utility.

<u>metal layer</u>" and b) "thermally bonded" are being construed as <u>product-by-process limitation</u> and therefore, it is contended that the product itself does not depend on the process of making it. Accordingly, in a product-by-process claim, the patentability of a product does not depend on its method of production. (emphasis added  $\rightarrow$ ) Having shown that the prior art of record comprises the same laminate structure (i.e. the metal layer, the surface treated layer, and the polyolefin layer in the same structural arrangement), it is further noted that the product in the instant claims is the same as or obvious over the product of the prior art.

It is disclosed that the sealing bag is formed with a material stuck together with plastic layers inserted with a metal layer such as aluminum foil and a metal deposition layer, a PET film is stuck thereto and a thermoplastic resin such as polyethyelene is also stuck thereto

(Abstract/Solution). Figure 3 below illustrates the specific layered structure of the sealing feature, particularly, the Al foil 9, the plastic layers 11 and the heat seal layers 10.

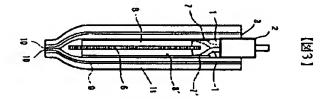


TABLE 1 below shows the specific constitution of sealing bag including: the PET layer, an urethane adhesive, the Al foil, the acid-modified LDPE, and the heat seal layers Y and Z.

【线】	対人型のシート構成		
	PET	(12 µ m)	
i	ウレタン系位着剤	(8 u m)	
	アルミ招	(9 µ m)	
	<b>微</b> 変成LDPB	(20 µ m)	
	セートレール海ャ	(20 µ m)	
	ヒートシール層2	(30 g m)	

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With respect to the surface treated layer: the JP'808 document also discloses that the sealing bag 3 preferably comprises a laminated material comprising a substrate having a metallic vapor deposition layer sandwiched between plastic layers 10 and 11 (SECTIONS 0010-0015).

Thus, the substrate itself having the metallic vapor deposition layer acts as the surface-treated layer over the substrate surface. Furthermore, it is also disclosed that the plastic film 11 and the metallic foil layer 9 are adhered to each other by using adhesive, such as urethane, epoxy and polyester resins (SECTIONS 0010-0015). Hence, the foregoing adhesive layer, to some extent, chemically treat the surface of the Al foil or the metallic layer.

With respect to the layer of an adhesive resin: it is disclosed that the acid-modified LDPE is an acid-modified polyolefin being modified by a carboxylic acid (SECTIONS 0010-0015).

## As to claim 5:

The JP'808 document discloses the metal layer is made of aluminum foil (ABSTRACT/SOULTION).

## On the matter of claims 8-9:

It is disclosed that resin composition used for a plastic layer is mainly made of acid-denatured polyethylene or acid-denatured polypropylene (ABSTRACT/SOLUTION). It is disclosed that the acid-modified LDPE is an acid-modified polyolefin being modified by a carboxylic acid (SECTIONS 0010-0015).

The JP'808 document discloses a layered laminate made of a seal film according to the foregoing aspects. However, the JP'808 does not expressly disclose the specific chemically surface-treated layer.

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## As to claims 1, 25-27:

Nonaka et al discloses a passive film may be formed on a metallic surface per se wherein a metal material is oxidized in an oxidative atmosphere (SECTION 0085). It is also disclosed that a metal material can be anodized using anodic oxidation thereof (SECTION 0085).

Additionally, it is taught that in conventional lithium secondary batteries, aluminum foil is formed with natural oxide films on its surface so that thin isolating film have often been formed in the interface therebetween (the inert protective or passive film formed by oxidative of said metal) (SECTION 0015).

Examiner's note: additionally, as to the limitation, "an oxidatively or chemically surface-treated metal layer", it is noted that a method limitation incorporated into a product claim does not patentable distinguish the product because what is given patentably consideration is the product itself and not the manner in which the product was made. Therefore, the patentability of a product is independent of how it was made. This is to address the limitations reciting the specific chemical treatment material/technique: even though the such limitation may impart, somehow, a different structure (the one formed by the specific surface-treated layer), it is noted that as long as the surface thereon is chemically or oxidatively treated, the present claims satisfy the intended invention of having a chemical-oxidative surface treated layer. Thus, the chemically/oxidatively surface treated layer is formed thereon regardless of the specific chemical treatment material or technique.

In view of the above, it would have been obvious to one skilled in the art at the time the invention was made to use the specific chemically surface-treated layer of Nonaka et al in the layered seal-forming laminate of the JP'808 document as Nonaka et al discloses that in

conventional secondary batteries, natural oxide films are formed on the surfaces of metallic components its surface to obtain a thin isolating film in the interface. Thus, Nonaka et al clearly envisions the formation of natural oxide films on metal surfaces to protect the metal surfaces per se. In consequence, Nonaka et al directly teaches the advantage of using the specific chemically surface-treated layer as instantly claimed. Moreover, it has been held that re-arrangement, reversal or duplication of parts is obvious. Succinctly stated, fact that a claimed feature is structurally re-arranged, reversed or duplicated is not sufficient by itself to patentably distinguish over an otherwise old feature unless there are new or unexpected results as it is a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration of the claimed layered laminate was significant. In re Japikse 86 USPQ 70. In re Gazda 104 USPQ 400. In re Harza 124 USPQ 378.

#### Response to Arguments

- 5. Applicant's arguments filed on 05/17/06 have been fully considered but they are not persuasive.
- 6. Applicant continues to argue that "There is not disclosure as to the adhesiveness of this layer as is required in the present invention", in response, the examiner merely asserts that the present claims are entirely silent as to "the specific adhesiveness magnitude" of the layer of the adhesive resin in order to clearly distinguish over Nonaka et al's separator film. The term "adhesive" in all pending claims represents a relative term, which is not defined by the claims themselves so as to provide a standard for ascertaining the requisite degree. Applicant is reminded that although the claims are interpreted in light of the specification, limitations from

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the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

7. Applicant has contended that "the experimental evidence in the present specification shows that the instant oxidized metal surface is structurally distinct from an oxidized metal surface obtained from simple exposure to air as in Nonaka et al". As such applicant has argued that any inference of obviousness is rebutted by a showing of unexpected results. In support of his argument, the applicants refer to the relevant data of the table on page 26 of applicant's specification. Having reviewed the showing in that TABLE, the examiner determines that the applicant has not demonstrated that the claimed subject matter as a whole imparts unexpected results. In re Klosak, 455 F.2d 1077, 1080, USPQ (CCPA 1972)(The appellants have the burden of showing that the claimed subject matter imparts unexpected results.); In re Heyna, 360 F.2d 222, 228, 149 USPQ 692, 697 (CCPA 1966) ("it is incumbent upon appellants to submit clear and convincing evidence to support their allegation of unexpected property.").

It is pointed out by the examiner that the objective evidence of nonobviousness is not commensurate in scope with the instant claims. The laminate structures supposedly representative of the claimed invention referred to in Inventive Examples 1-5 of TABLE on page 26 are limited to employing a specific aluminum (Al) plate; specific phosphoric/chromium acid treatments with specific concentrations; specific maleic anhydride modified polypropylene resin having a specific grafted amounts and thickness; and specific primer materials (i.e. Duffon or Orgaplasuf 30 NC or Epowhite B002/EIPKOTE 828 or Eton 2100E). Although these exemplified laminate structures appear to show some improvement in adhesive strength, the applicant has not provided any evidence, much less any explanation, as to why this limited

showing is sufficient to support, for example, the multifarious laminate structures made of materially different "metal layer" and "adhesive layer" components including specific grafted amounts of a resin and thickness dimensions; and made using materially different additional components such as "primer layers" and specific phosphoric/chromium acid solutions for treating the plate surface. This is especially true in this case since the applicants own specification seems to indicate that the specific metal layer and adhesive layer used, as well as the presence or absence of other components, affect such adhesive properties of the laminate. Thus, it cannot be said that the applicant has carried his burden of showing that the claimed subject matter as a whole imparts unexpected results, thereby rebutting the prima facie case established by the examiner.

8. Furthermore, Comparative Examples 1-5 of TABLE on page 26, which applicant argues to represent Nonaka et al's invention (the ones that applicant equate to Nonaka et al's embodiment), are prepared by immersing the plate in a toluene solution and ultrasonic cleaning it. However, Nonaka et al does not use, do or perform that; and there is no mention or discussion by the applicant about the implication of using a toluene solution as well as ultrasonic cleaning for this purposes. Applicant simply did not address the use of a toluene solution and ultrasonic cleaning in his Comparative Example (why they were use and their implication) and with respect to the teachings of Nonaka et al. This is in no way a reasonable characterization of Nonaka et al's embodiment, much less an equivalent characterization thereof. Therefore, not only the objective evidence of non-obviousness provided by the applicant is not commensurate in scope with the present claims; but also such objective evidence (the Comparative Examples 1-5) is in no way fairly representative of Nonaka et al's laminate embodiment.

- 9. Moreover, there is no inventive example exemplifying an Al-plate having thereon a layer of an anodizing reaction (all inventive examples employed acid treatment of the plate surface) which is also another embodiment currently claimed by the applicant. Nor does applicant explains, discuss, advises or suggests how an acid treated surface (layer formed by acid treatment) is representative of or materially equivalent to a layer formed by an oxidizing reaction (layer being a reaction product of an oxidizing reaction of the metal layer).
- 10. Therefore, applicant has also failed to provide a fair comparison between the claimed laminate structure and the closest prior art of record. Thus, appellants' allegation of unexpected results is further unsuitable just because appellants are not comparing the combined closest prior art to the claimed invention as required by MPEP 716.02(d) § 716.02(e) establishing that evidence of unexpected properties may be in the form of a direct or indirect comparison of the claimed invention with the closest prior art which is commensurate in scope with the claims. See In re Boesch 205 USPQ 215.
- 11. With respect to applicant's arguments addressing the JP'808 references (See page 10 of the amendment dated 05/17/06 at [III-C] JP'808-), it is noted that the rejection of claims 1, 5, 8-9, 14, 16 and 25-27 is based upon a combination of two (2) references (i.e. the JP'808 and Nonaka et al'958). In this respect, it is further noted that applicant does not discuss or dispute the prior art rejection based upon such a combination. Nor does applicant traverse or contest the implication or proposed allegation or connotation of alleviating or remedy the deficiency of the primary reference JP'818 with the Nonaka et al'958. Therefore, in response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See In re

Keller, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); In re Merck & Co., 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

The following responses to applicant's arguments have been presented in prior office actions and pertain, in general, to all of the ground of rejections discussed supra:

12. Additionally, the examiner likes to further address certain applicant's comments about the Nonaka et al'958 reference. With respect to applicant's arguments that "it would be clear to the skilled artisan that such a polyolefin does not have adhesive properties", it is contended that the present claims are silent as to the specific adhesive degree. Moreover, the very same claims do not clearly set forth the specific polyolefin material for ascertaining the requisite degree of adhesiveness. Thus, since the recited "polyolefin" material covers a very large number of applicable materials which can be used therefor, it is contended that "a film/layer" comprising any "polyolefin material" would produce a film/layer exhibiting the specific adhesive properties As to applicant's arguments concerning "the surface treatment of the metal layer", the examiner again contends, in addition to the product-by-process nature of such a limitation as explained above, that the claimed "oxidative or acid treatment of the metal layer" is almost an allencompassing limitation including a large number of applicable techniques known in the art. Accordingly, the examiner strenuously contends that any surface treatment of the metal layer may read on "the claimed surface treatment". Let's also make clear that by no means the examiner is herein backing off from this position that such "a product-by-process limitation", in the absence of unexpected results, add nothing to the patentability of present claims because the ultimate inventive concept at issue is a product per se and not a method of making the product.

Thus, having shown that the prior art of record allows those of ordinary skill in the art to arrive at the specifically claimed laminate structure by minor modifications such as rearrangement of layers, the burden is still on the applicant to show significant product distinction (i.e. unexpected results or superior characteristics) in a product-by-process claims.

Last but not least, applicant's arguments regarding the rejection combining the JP'808 13. and Nonaka et al'958 have been reviewed and considered in their entirety. At the outset, it appears that applicant has failed to recognized that such a rejection is based upon a hypothetical combination of reference under the 35 USC 103 statutory basis. Thus, attacking references independently, individually or singly rather than collectively, together or in combination is not an opposite manner to overcome the rejection so based, and one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See In re Keller, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); In re Merck & Co., 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In addition to that, in the second full paragraph of page 10, applicant discusses or mentions the following: "The Examiner should be aware that to support an anticipation rejection...", applicant is reminded that this is not an anticipation rejection, instead, it is an obviousness-based rejection. Applicant is respectfully requested to take a closer look at the statutory basis of this rejection. Nonetheless, in the absent of further persuasive comments, remarks or arguments, applicant is reminded that the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would

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have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

14. The principal contention of applicants' arguments is premised on the assertion that the prior art of record does not disclose/involve "the use of an oxidatively or chemically surfacetreated metal as required by applicants' claimed invention". However, this assertion is still insufficient to overcome the rejection. First of all, the rejected claims have been now construed as being directed to a product-by-process recitation. In this regard, although applicants are entitled to define a product by using process/method limitations, what is given patentably consideration is the product itself and not the manner in which the product was made. In this case, the combined prior art teaches the specific structural arrangement of the laminate. In consequence, the references are teaching substantially the same product and constituents as the product made by the product-by-process limitation of the instant claims. Therefore, the patentability of a product is independent of how it was made. However, there may be situations when the manner in which a product was made should be given consideration. Thus, burden is on applicants to show differences in product-by-process claims as well as in product comparisons. Further, even though the prior are may fail to disclose other physical properties, in view of the substantially similar products being disclosed in the instant application, the examiner has a reasonable basis to suspect that the claimed product and the combined prior art's layered structure would be substantially the same. Since PTO does not have proper equipment to carry out the analytical tests, the burden is then shifted to applicants to provide objective evidence demonstrating the claimed product is necessarily different from the prior art's product, and that the difference is unobvious (Refer to MPEP 2113: Product-by-Process Claims). Accordingly,

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a structure comparison to show how the present claims patentably differentiate from the applied-combined prior art. In the event applicants further argue that "an oxidatively or chemically surface-treated metal layer" is structurally different, it is contended that applicants have failed to state how the implied manufacturing process steps would be expected to impart distinctive structural characteristics to the final product. See, e.g., In re Garnero, 412 F.2d 276, 279, 162 USPQ 221, 223.

#### Conclusion

15. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raymond Alejandro whose telephone number is (571) 272-1282. The examiner can normally be reached on Monday-Thursday (8:00 am - 6:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Raymond Alejandro Primary Examiner Art Unit 1745

> RAYMOND ALEJANDHU PRIMARY EXAMINER